AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A method for producing particulate barium sulfate in which at least 90% of the particles have a primary grain diameter of less than 0.1 μm, said method comprising:

combining a barium salt solution with an alkali sulfate salt solution to form a reaction mixture in a continuously operating mixing reactor, in which shear, displacement and frictional forces of intermeshing tools act at high relative speed on the reaction mixture formed, wherein at least some of said intermeshing tools are mounted on at least one rotor which rotates at a rotational speed of at least 2000 rpm, whereby resulting barium sulfate is precipitated,

wherein a wetting agent or a dispersing agent is added during or after precipitation of the resulting barium sulfate and

after passage of the reaction mixture through the reactor, separating and drying the resulting barium sulfate;

wherein the concentration of barium salt and sulfate in the salt solutions is at least 80% of the maximum possible concentration.

2. (original) A method according to claim 1, wherein the concentration of barium salt and sulfate in the salt solutions is at least 90% of the maximum possible concentration.

3. (original) A method according to claim 1, further comprising washing the separated barium sulfate at least once with water before drying.

4. (original) A method according to claim 1, wherein the barium sulfate is precipitated at a temperature between 0°C and 100°C.

5. (original) A method according to claim 4, wherein the barium sulfate is precipitated at a temperature between 20°C and 50°C.

6. (original) A method according to claim 1, wherein at least some of said intermeshing tools are mounted on at least one rotor which rotates at a rotational speed of from 2000 rpm to 8000 rpm.

7. (original) A method according to claim 1, wherein the reaction mixture has a residence time in the mixing reactor in the millisecond range.

8. (original) A method according to claim 1, wherein said barium salt solution and said alkali sulfate solution are aqueous solutions.

9. (original) A method according to claim 1, wherein the barium salt solution is a solution of barium chloride.

10. (original) A method according to claim 9, wherein the barium chloride solution has a $BaCl_2$ concentration of at least 0.9 mole/liter.

11. (original) A method according to claim 1, wherein the alkali sulfate solution is a solution of sodium sulfate.

12. (original) A method according to claim 11, wherein the sodium sulfate solution has a Na_2SO_4 concentration of at least 0.9 mole/liter.

13. (cancelled)

14. (previously presented) A particulate, coated $BaSO_4$, comprising a wetting agent or a dispersing agent, wherein at least 95% of the particles have a primary grain diameter $\leq$ 0.1 μm, produced according to the method of claim 1 ~~13~~.

15. (previously presented) A particulate, coated $BaSO_4$ according to claim 14, wherein at least 99% of the particles have a primary grain diameter $\leq$ 0.1 μm.

16. (previously presented) A particulate, coated $BaSO_4$ according to claim 15, wherein 100% of the particles have a primary grain diameter $\leq$ 0.1 μm.

17. (New) A plurality of coated $BaSO_4$ particles comprising a wetting agent or a dispersing agent, wherein at least 95% of the particles have a primary grain diameter < 0.1 μm, produced according to the method of claim 1.

18. (New) A plurality of coated $BaSO_4$ particles according to claim 17, wherein at least 99% of the particles have a primary grain diameter $\leq$ 0.1 μm.

19. (New) A plurality of coated $BaSO_4$ particles according to claim 17, wherein 100% of the particles have a primary grain diameter ≤ 0.1 µm.